

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

<b>Electrification and the Grid of the Future</b>	) ) ) )	<b>Docket No. AD21-12-000</b>
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**TECHNICAL CONFERENCE**

**PREPARED REMARKS OF SOUTHERN COMPANY SERVICES, INC.**

Southern Company Services, Inc., acting as agent for Alabama Power Company, Georgia Power Company, Mississippi Power Company, Southern Power Company, Southern Company Gas, and its other affiliates (collectively, Southern Company or the Company)<sup>1</sup> provides these prepared remarks in advance of the April 29, 2021 Technical Conference: Electrification and the Grid of the Future. These remarks, provided by Adrienne Collins, Southern Company Services’ Senior Vice President of Power Delivery, address the questions for Panel III: Transmission and Distribution System Services Provided by Flexible Demand.

Southern Company is excited about the future, including an energy transition that should help support achieving our net zero greenhouse gas (GHG) emissions goal, and opportunities for newly electrified resources to provide additional grid services. We recognize energy as a necessity, and not simply a commodity, and therefore providing clean energy while protecting the affordability and reliability of electricity and the resilience of the grid in a rapidly evolving landscape remain our priorities. Indeed, Southern Company’s rate-based, vertically integrated, state-regulated structure well-positions us to develop and implement innovative energy solutions that are clean, safe, reliable, and affordable.

Advances in electrified resources, along with new technologies that will facilitate their increased adoption, present unique opportunities for growth while introducing potential challenges that

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<sup>1</sup> In this document, the terms we, us, our and the Company all refer to Southern Company. Southern Company is a holding company that conducts its business through its subsidiaries. Accordingly, unless the context otherwise requires, references in this document to Southern Company’s operations, such as generating activities, GHG emissions and employment practices, refer to those operations conducted through its subsidiaries.

must be thoughtfully considered and addressed. Collaboration and continued engagement across federal, state, and local leaders, industry partners, and interdependent sectors has been and will remain necessary to absorb and use these new resources in a way that both benefits and protects our customers. Moreover, sound policies are paramount for establishing the foundation upon which new grid services can be successfully integrated and used. Southern Company strongly supports providing market participants certainty and stability in an emerging and changing environment. Sound criteria should also be established to properly assess and assign value to these new grid services.

Our vertically integrated model allows us to consider and evaluate new grid services at any point along the value chain to best determine the right solutions for our customers. Our regulated structure, including coordination and oversight by state regulators, allows Southern Company to assess and accommodate grid services for the benefit of both participants and non-participants. Indeed, our regulated structure enables us to nimbly adopt technologies, including grid service technologies, that make economic sense and ensure continued safety and reliability. Further, this proven approach will protect our customers against cross subsidization and will allow us to implement grid enhancing technologies in ways that provide value without increasing energy burden on non-participants, especially on those who can afford it the least.

Additionally, identifying and resolving technology challenges will be necessary for wide-scale implementation of new grid services. As traditional load models and grid behavior assumptions change to reflect the evolving fleet of the future, the focus should be on technologies and investments in newly electrified resources that increase flexibility, protect reliability, and enhance grid resilience. Further, any new grid service will require specific operational capabilities to protect our ability to deliver on our commitment to serve our customers.

Southern Company believes three operational abilities are key: visibility, predictability, and dispatchability. Just as traditional resources provide flexibility and essential reliability services, new resources must have the ability to provide the same attributes to ensure continued reliability and resilience of the system. As more intermittent and distributed energy resources are added, system operators will need full visibility into the expected and real-time operations of these

resources. The behavior of these resources in normal and disturbance conditions must be understood in order to plan for their most efficient and effective use. Finally, we need the ability to communicate and dispatch these resources while protecting the integrity of the grid.

Continued research is necessary to develop solutions that facilitate these abilities. Southern Company enjoys a longstanding commitment to innovation through research, development, demonstration, and deployment (RDD&D). Our RDD&D program works within the industry through numerous collaborative partnerships such as the U.S. Department of Energy, National Laboratories, and the Electric Power Research Institute. Additionally, we currently have grid enhancing technologies deployed across our system and have successfully implemented them with oversight from state regulators. Some examples include utility-scale solar and battery storage, microgrids, Smart Neighborhood® homes, and electric transportation infrastructure.

As we continue to incorporate more of these technologies, it will be important to develop an effective and flexible framework for supporting future technology integration while also addressing the potential challenges the technologies could present. One such challenge is the growing interdependence on telecommunication systems. We have experienced increased complexity, and increased opportunities, as more devices are added to these interdependent systems. We must continue to ensure that our communications are secure and reliable as we implement new technology solutions. We believe flexible frameworks that promote visibility, predictability, and dispatchability of these resources along with government collaboration are needed to address evolving risks and better mitigate reliability concerns.

Southern Company has been, and will remain, committed to realizing a clean energy future as we build an increasingly diverse energy portfolio and a reliable, resilient grid. Prioritizing the development of a comprehensive, flexible framework that supports continued electrification opportunities is critical to achieving these goals, and we must do so without compromising energy affordability for our customers. We appreciate the opportunity to work with the Commission and others to develop constructive solutions to ensure continued electric system reliability in the middle of our nation's energy evolution.